To: Rik Lantz[rlantz@scst.com]; Drexler, Timothy[drexler.timothy@epa.gov]; Heimerman, Jeffrey[Heimerman.Jeff@epa.gov]
Cc: Matt Bizjack[mbizjack@scst.com]; Jacki Shepherd[jshepherd@scst.com]; JD Campbell[jdcampbell@scst.com]; Dean Geers[dgeers@scst.com]; mindy.gould@tetratech.com[mindy.gould@tetratech.com]; Berkoff, Michael[berkoff.michael@epa.gov]
From: Alcamo, Thomas
Sent: Wed 8/10/2016 8:26:34 PM
Subject: RE: Timing of analytical data from USS Lead Zone 1
Jan 12 2016 email.pdf
Dec 8 2014 email.pdf
Dec 17, 2014 email.pdf
Dec 3 2014 email.pdf

Attached are additional emails from Michael Berkoff provided discussing initial raw XRF data and a summary table.

From: Rik Lantz [mailto:rlantz@scst.com]
Sent: Wednesday, August 10, 2016 2:39 PM
To: Alcamo, Thomas <alcamo.thomas@epa.gov>; Drexler, Timothy <drexler.timothy@epa.gov>; Heimerman, Jeffrey <Heimerman.Jeff@epa.gov>
Cc: Matt Bizjack <mbizjack@scst.com>; Jacki Shepherd <jshepherd@scst.com>; JD Campbell <jdcampbell@scst.com>; Dean Geers <dgeers@scst.com>; mindy.gould@tetratech.com; Berkoff, Michael <berkoff.michael@epa.gov>
Subject: RE: Timing of analytical data from USS Lead Zone 1

All:

I spoke with the former SulTRAC project manager Rich Baldino for USS Lead project yesterday, and he clarified some of the timing, specifically regarding the contents of the May 15, 2015 Preliminary Design document.

First, a note to clarify why reconstructing a timeline has been challenging: the work was conducted when the current USS Lead project team worked for a now defunct company - Sullivan. Our SulTRAC USS Lead project team maintained project continuity by Tetra Tech directly hiring the personnel involved with the USS Lead project, however, our e-mail records from the time period in question were no longer available to us after Sullivan stopped operations. The SulTRAC project team placed a complete set of SulTRAC technical files on a Dropbox account to maintain operations – just not the email accounts.

In addition, many of the key personnel involved in the early stages of the USS Lead project no longer work with the SulTRAC Team. These key personnel include the former project manager, the former database manager, the former chemist, and the former field team leader. Because we no longer have access to the e-mail correspondence and the key personnel are no longer

available to answer questions, our reconstruction of a detailed timeline of data transmittal has proven challenging.

I reached out to the former project manager last Friday and again last night, and he reconstructed significant details from the e-mails on his personal computer, as follows:

1) Raw XRF results were sent weekly from the field to the RP contractor Parsons. The e-mail that Rich forwarded to me (attached) went only to Parsons (not EPA), but I understand from Tom Alcamo that Michael Berkoff apparently has an e-mail from the same time period that included XRF data. We do not currently have any e-mails to Michael from 2014 or early 2015 that included soil concentration data.

2) The Preliminary Design Report dated May 15, 2015 apparently did not contain all 116 designs as I indicated below. Instead, it included three example designs which were included to serve as examples for comments from EPA and the RP on the format of the designs.

3) Laboratory data underwent routine laboratory validation by ESAT and later underwent project-level validation (a usability assessment) to make sure that the data conformed with the data quality requirements identified in the project QAPP.

The full set of 116 preliminary designs including uncorrected XRF data and laboratory analytical data that was validated by the laboratory but not by a SulTRAC project chemist was informally transmitted on a disc due to the size of the designs, so we have difficulty identifying the date when the designs including preliminary data for each Zone 1 property were actually transmitted to EPA. Rich recalls transmitting the disc sometime between July and October 2015, but does not recall an exact date. These files did not contain fully validated actionable data.

When I took over leadership of the project in Mid-October 2015, Rich handed me a disc containing all of his project files. That disc contained a folder with the title "Preliminary Design" which included 116 preliminary designs with file dates of September 23, 2015, and a zip file containing the same designs dated October 8, 2015. The dates on these files lead me to believe that the designs were probably transmitted to EPA between September 23 and October 8, 2015. However, we cannot definitively establish the date when this informal transmittal took place.

The information provided above provides more context about the timing of the transmittal of Zone 1 data to EPA. As I learn more, I will forward any significant new information to the group.

Thanks,

Rik

From: Rik Lantz
Sent: Thursday, August 4, 2016 4:12 PM
To: 'Alcamo, Thomas' <alcamo.thomas@epa.gov>
Cc: Matt Bizjack <mbizjack@scst.com>; Jacki Shepherd <jshepherd@scst.com>; JD Campbell <jdcampbell@scst.com>; Dean Geers <dgeers@scst.com>; mindy.gould@tetratech.com; 'Berkoff, Michael' <berkoff.michael@epa.gov>
Subject: Timing of analytical data from USS Lead Zone 1

Tom: We have had several iterations of the question "When did we get the Zone 1 data?" and I'd like to clarify and document what we have and what we know in this e-mail.

First, the basics: We sampled Z1 and Z3 from November 2014 to December 2015, demobed for the winter and finalized Z3 in April and May of 2016. We started sampling Z1 on November 11, 2014 and switched over to Z3 on May 3, 2015 (this is detailed in Table 1 of the Data Evaluation Report that we submitted last week, attached).

However, we went back to Zone 1 for follow up work several times after May 2015:

- 5101 Gladiola: This property was sampled during the RI in 2010, but upon reviewing the data, we found that only the front yard was sampled, so we returned in August 2015 and sampled the back yard.

- Carrie Gosch Elementary: This school was divided into four quadrants and only the SE quadrant was contaminated. The SE quadrant has a small front lawn separated by a parking lot with a few islands from a large grassy area east of the parking lot. We went back to sample the small front lawn area in August 2015 and found it to be uncontaminated.

- Goodman Park was initially divided into four quadrants, and it is a very large area reaching from the canal to the basketball courts. When I became involved with the project, I thought that area was too large to be characterized by just a few samples, so we divided it into more quadrants and collected more samples from the newly defined quadrants in August and December 2015.

- Corridor south of public housing area: I reviewed the consent decree and found that the area between 151st and the public housing area fence is considered part of Zone 1, so we collected samples from this area in November and December 2015.

As you know, there are three data sets: XRF, EPA Labs (which included CRL and CLP), and Chemours lab.

- XRF: We had raw XRF for each location shortly after we collected the samples. We initiated discussion of the XRF correction factor with the PRP on January 19, 2016, when our fixed lab analytical data came back from CRL. We did not agree with the PRP on a

correction factor to apply to the XRF until April 21, 2016. Therefore, I would say we knew the final XRF results on April 21, 2016.

•□□□□□□□ EPA Lab data: We used both CLP labs and CRL for EPA's fixed lab analysis. The samples were collected and sent to EPA labs in batches as they were collected and XRFed, and the unvalidated results came back several weeks later, validated results about one month later. For example, a sample from 4840 Gladiola was collected on December 22, 2014, XRFed on January 5, 2015, received by the lab on January 7, 2015, analyzed on January 21, 2015, and ESAT validated on February 6, 2016. Exact timing for each sample is detailed in the attached table. Note that not every sample has data from a fixed EPA lab. That is because SulTRAC used XRF screening to select a subset of samples to submit for fixed lab analysis (those with raw XRF between 300 and 400 ppm Pb and 20 to 50 ppm As).

•□□□□□□□ Chemours lab data: Chemours used our XRF screening to select their own group of split samples to send to their own fixed lab, so there is not a one-to-one match between PRP lab data and EPA lab data. PRP split sampling was done episodically on a couple of occasions (11/2014, 12/2014, 1/2015, and 5/2015). We learned at the end of January 2016 that Chemours data was not validated, so we requested validation reports. We received Chemours validation reports between March 25 and April 1, 2016.

The final question is when did EPA receive the data.

•□□□□□□□ May 15, 2015: SulTRAC submitted a Preliminary Design Report for Zone 1 that included all of the analytical data for 116 parcels for which all of the data was available. These designs presented all available data including the uncorrected XRF, unvalidated EPA data, and unvalidated PRP data. Note that we cannot confirm the exact number of designs that SulTRAC included with the report. 116 designs is my best estimate based on electronic records.

•□□□□□□□ October 28, 2015: Parsons sent a table to EPA and SulTRAC via e-mail that included a preliminary set of parsons and SulTRAC XRF and unvalidated fixed lab data for 120 properties.

•□□□□□□□ June 17, 2016: SulTRAC submitted a Prefinal Design Report for all 118 Zone 1 properties. This prefinal document presented the corrected XRF data (XRF correction factor finalized on 4/21/2016), validated EPA data, and validated PRP Data (validated PRP data became available between March 25 and April 1, 2016).

•□□□□□□□ July 14, 2016: SulTRAC submitted a Draft Final Design Report for all 118 Zone 1 properties which incorporated PRP comments on the Pre-Final design.

•□□□□□□□ July 18, 2016: SulTRAC submitted a Final Design document for 13 high priority properties. These properties are a subset of the 118 properties in Zone 1.

Based on this complex history, the earliest time that EPA got a comprehensive data set in a reasonably final form for Zone 1 appears to be when you got the Prefinal Design Report on June 17, 2016. The Pre-Final Design that EPA received on May 15, 2015 had preliminary data for all

parcels, but the XRF data was uncorrected and the fixed lab data was unvalidated. A data table provided by Parsons on October 28, 2015 also included uncorrected XRF and unvalidated data from EPA and Parsons fixed laboratories.

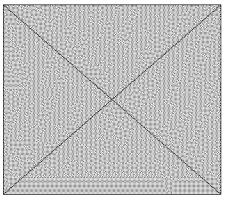
Both a summary table showing the actual dates when data moved through the stages of lab receipt, analysis, lab validation, ESAT validation, and SulTRAC's project level validation (USS Lead Action data with dates.xlsx) and also the data that Parsons provided to both SulTRAC and EPA that shows our data and Chemours data side by side for each location (USSLEAD 1028.xlsx) are attached. Please let me know if you would like additional detail about the timing of analytical data sent to EPA.

Thanks,

Rik

Rik Lantz, P.G., LEED-AP

Director of Environmental Services



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